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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,540	02/05/2004	Vishnu K. Agarwal	108298404US1	5989

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EXAMINER
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OJINI, EZIAMARA ANTHONY

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/772,540	AGARWAL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anthony Ojini	3723	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 45-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 45-54, 56-63 and 65 is/are rejected.
- 7) ☒ Claim(s) 55 and 64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/5/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

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### DETAILED ACTION

Applicant's cancellation of claims 1-44,66-72 filed is acknowledged.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 51,54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 51, line 2, the term "planform" is unclear.

In claim 54, line 2, the expression "a surfactant or an oxidizer" is unclear which element applicant is referring to.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 45-49, 51-54,56-63,65 are rejected under 35 U.S.C. 102(b) as being anticipated by **Christianson et al.** (6,110,015).

**With respect to claims 45,57**, Christianson et al. disclose an abrasive article bonded to support pad for polishing a workpiece, comprising a generally planar support portion,

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and a plurality of discrete texture elements (16') disposed on the support portion, the texture elements being initially separate from the support portion and subsequently bonded to the support portion with portions of the texture elements being spaced apart from each other and projecting from the support portion, each texture element having a generally smooth upper surface, smoothly transitioning to a generally smooth side surface without asperities (see fig. 4).

**With respect to claims 46,58**, Christianson et al. disclose wherein the texture elements have a plurality of abrasive particles (15) embedded therein (see fig. 4).

**With respect to claims 47,59**, Christianson et al. disclose wherein the texture elements include partially spherical droplets (see figs. 3,4).

**With respect to claims 48,60**, Christianson et al. disclose in column 4, lines 11-12, wherein the average size of the abrasive particles is about 0.01 micrometers to about 300 micrometers that **inherently** include a cross-sectional dimension of from approximately 50 microns to approximately 200 microns of the texture elements as claimed by the applicant.

**With respect to claims 49,61**, Christianson et al. disclose in column 15, lines 34-39, wherein the texture elements project from the support portion by a distance of 10 micrometers to about 1500 micrometer that inherently include a distance from about 10 microns to about 200 microns as claimed by the applicant.

**With respect to claim 51**, Christianson et al. disclose wherein the support portion has a generally circular planform shape.

**With respect to claims 52,62**, Christianson et al. disclose wherein the support portion

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includes a support material, further comprising an adhesive material between the support material and the texture elements (see col. 21, lines 62-64).

**With respect to claims 53,54,63**, Christianson et al. disclose a selected chemical agent embedded in the texture elements that include a surfactant (col. 12, lines 25-32).

**With respect to claims 56,65**, Christianson et al. disclose wherein the texture elements (16) and the support portion (12) have the same chemical composition (see col. 12, lines 26-33, col.14, lines 45-59).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Christianson et al. (6,110,015)** in view of **Applicant Admitted Prior Art (AAPA)**.  
**With respect to claim 50**, Christianson et al. fail to disclose wherein the support portion is elongated in an longitudinal direction.

AAPA discloses wherein the support portion is elongated in an longitudinal direction (see fig. 1).

It would have obvious to one having ordinary skill in the art at the time the invention was made to provide apparatus of Christian et al. with support portion that is elongated in an longitudinal direction in view of AAPA so as to form a web-format polishing pad.

***Allowable Subject Matter***

Claims 55 and 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Han et al (5,782,682) disclose a grinding wheel having abrasive tips. **Suzuki** (6,332,833 B1) CMP polish pad having a plurality of discrete texture elements disposed on the support portion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Ojini whose telephone number is 571 272 4492. The examiner can normally be reached on 7 to 4 Tuesday-Friday with every other Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571 272 4485. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "A. O. P. M.", is located in the lower right quadrant of the page.

AO  
12/3/04